

DESCRIPTIONS OF SOME NEW ARANEIDÆ OF NEW
SOUTH WALES. No. 9.

BY W. J. RAINBOW, F.L.S.,

(ENTOMOLOGIST TO THE AUSTRALIAN MUSEUM).

Plates xxiii.-xxiv.

The present paper contains descriptions of several interesting as well as typical forms.

The first, *Dysdera australiensis*, constitutes a new generic record for Australia. Simon, in his masterly work, "Histoire Naturelle des Araignées,"* defines the geographical range of *Dysdera* as: "Europa et regio mediterranea; Africa sept. et max. austr.: ins. Atlanticæ; Asia centra.; America sept. et austr." For a genus, the species of which are so scattered, it does not, to me, appear remarkable that it should be found to occur in Australia; indeed, it seems surprising that it has not been recorded before.

The species described hereunder is a typical form, and calls for no special comment. All the members of its family (*Dysderidae*) live by hunting, rushing out upon their prey from under stones, cracks of walls, or dark, damp, mossy situations.

The species constituting the family *Hersiliidae* are all striking forms, and may be easily distinguished by their spinnerets, which are characteristic. The superior spinners (two) are very long; the basal joint is robust, cylindrical, and exceeds the entire length of the other spinnerets, whilst the terminal joint is tapering, and in some genera (*Hersilia*, Aud. in Sav., and *Tama*, E. Simon) very long and attenuated.

* Deuxième Fascicule, Tome 1^{er}, p. 318.

All the individuals are exceedingly active and difficult to capture. Simon says*: "Les uns (*Hersilia*) se tiennent sur les troncs d'arbres et les vieilles murailles où leur coloration, grise ou blanchâtre, leur permet de se dissimuler; elles ne filent aucune toile; les autres (*Tama*, *Hersiliola*) habitent sous les pierres ou dans les fissures de rochers; elle se tiennent toujours sous la voûte formée par la pierre où elles tendent quelques fils très irréguliers, à la manière des *Pholcus*."

Only two members of the family *Hersiliidæ* have previously been recorded from Australia (*Tama novæ-hollandiæ* and *T. pickerti*), and these were described by L. Koch under the generic name *Chalinura* (1876). Simon, however, in his work already quoted† assigns them to the genus *Tama*, E. Sim.,‡ (1882), the former being a synonym. It will be seen from the above quotation that spiders of the genus *Tama* should be sought for under stones or in the fissures of rocks. The specimens captured by me (2 ♂ and 2 ♀), and for which I propose the name *Tama-eucalypti*, were taken from the trunks of two Eucalyptus trees at Balmoral, Sydney, the grey bark of which they closely simulated. I saw none of these spiders on any of the neighbouring rocks, nor did I observe any webs constructed by them for the capture of prey. Indeed, from their movements it appeared to me that they relied upon their dexterity for food. At the foot of his description of *Tama* (*Chalinura*) *novæ-hollandiæ*,§ Ludwig Koch

* *Loc. cit.*, pp. 444 and 445.

† *Loc. cit.*, p. 446.

‡ In his introduction to the study of the *Hersiliidæ*, Simon adds a footnote (*Hist. Nat. d. Araignées*, pp. 440-441) in which he says: "Le genre *Chalinura*, proposé par Dalman (*Vet. Akad. Handl.*, 1826), pour une Araignée (*C. longipes*) contenue dans un morceau de gomme copal, est contemporain du genre *Hersilia*, Aud., et il est bien difficile de décider lequel des deux noms a la priorité. Dans tous les cas, ces deux noms sont entièrement synonymes et celui de *Chalinura* ne peut adjoind'hui être appliqué à un genre plus récent démembré de celui des *Hersilia*, comme l'a proposé Thorell (*St. Rag. Mal.*, etc., iv., 1889-90, p. 319)."

§ *Die Arachniden Australiens*. Band ii., p. 830.

added a short note to the effect that *C. novæ-hollandiæ* was taken at Sydney by Mr. Bradley, but that he found no web; the specimens collected by Mr. Bradley were captured from shrubs and plants. [*C. novæ-hollandiæ* wurde von Mr. Bradley bei Sydney gefunden; nach den Notizen desselben verweilte das Thierchen bewegungslos an einen Zweige und hatte kein Gewebe; Mr. Bradley erhalte es auch durch Klopfen von verschiedenen Sträucher und Pflanzen.] It will be seen, therefore, that, according to the observations of Mr. Bradley and myself, the Australian forms of this genus, at any rate, are of arboreal habits.

Of the *Argiopida*, two new species of *Araneus* are described; of these, *A. singularis* is a very remarkable and interesting form; the other (*A. parvulus*) is normal. Lastly, a variety of Cambridge's *Dicrostichus furcatus* (var. *distinctus*) is recorded and described.

Family DYSDERIDÆ.

Subfamily DYSDERINÆ.

Genus DYSDERA, Latr.

DYSDERA AUSTRALIENSIS, sp.nov.

(Plate XXIII., figs. 1, 1a.)

♀. Cephalothorax 5 mm. long, 4 mm. wide; abdomen 7·3 mm. long, 4 mm. wide.

Cephalothorax longer than wide, ovate, dark mahogany-brown, glabrous. *Pars cephalica* high, convex, obtusely truncated in front. *Pars thoracica* convex, sloping posteriorly, impressed transversely at centre, lateral radiating markings faint. *Marginal band* narrow.

Eyes six, compactly grouped, arranged in two rows, and in the form of a small, transverse oval; the pair comprising the anterior row are somewhat the largest, and are separated from each other by a space equal to about twice their individual diameter; the second row (four) is strongly procurved, and of these the median

pair are not only the closest together, but are also slightly larger than their lateral neighbours.

Legs reddish-yellow, moderately long, hairy, the tibiæ and metatarsi of the third and fourth pairs armed with short black spines. Relative lengths 1, 2, 4, 3.

Palpi concolorous, hairy.

Falces mahogany-brown, long, conical, porrected; superior surfaces sparingly hairy, inner margins thickly fringed with long hairs.

Maxille concolorous, long, straight, convex, pointed at tips, and enlarged at base where the palpi are inserted.

Labium concolorous also, long, narrow, convex, very slightly tapering towards apex; the latter truncated and hollowed out.

Sternum mahogany-brown, oval, convex, impressed laterally, attenuated and truncated in front, obtusely pointed posteriorly; near the haunches there are a few long hairs.

Abdomen pale yellowish, pubescent, slightly projecting over base of cephalothorax.

Hab.—Sydney.

Family HERSILIIDÆ.

Genus TAMA, E. Simon.

TAMA EUCALYPTI, sp.nov.

(Plate XXIII., figs. 2, 2a, 2b, 2c.)

♂. Cephalothorax 1·8 mm. long, 1·8 mm. broad; abdomen 3 mm. long, 1·8 mm. wide.

Cephalothorax greyish, as broad as long, obovate, impressed, moderately arched, clothed with grey pubescence. *Pars cephalica* small, high, sides declivous, posterior angle sloping, impressed; ocular region projecting forwards. *Pars thoracica* broad, moderately arched, deeply grooved down the centre; radial grooves

deep; there is also a broad, shallow, lateral groove commencing at base of cephalic eminence, and terminating near posterior angle.

Eyes eight, poised upon two tubercles; anterior pair much the smallest of the group, elevated upon a small tubercle, and separated from each other by a space equal to about twice their individual diameter; median pair of the second series (four) large, and separated from each other by a space scarcely equal to their individual diameter; lateral eyes of median group small, oval, and seated below posterior eyes; the latter are widely separated from each other, and are equally as large as the median pair of the second series.

Legs yellowish-grey, long, tapering, hairy, armed with long, fine spines. Relative lengths 1 = 2, 4, 3; of these the third pair are much the smallest.

Palpi concolorous, moderately long, robust, similar in clothing and armature to legs. Copulatory organ as in figure.

Falces yellow, cylindrical, vertical, sparingly clothed with coarse hairs or bristles; apices divergent.

Maxille concolorous, glabrous, arched, strongly inclining inwards; apices obtuse.

Labium concolorous also, glabrous, moderately convex, broader than long at base, rounded off at apex.

Sternum yellow, glabrous, cordate, sparingly clothed with yellowish pubescence, truncated in front.

Abdomen oblong, grey, hairy, slightly projecting over base of cephalothorax; anterior angle truncated, and deeply indented at centre; at about one-fourth its length from anterior margin there are two large, deep, round depressions or pits, widely separated from each other; and at a distance rather more than half the length there are two more, but these are much larger than the latter, are oval, seated obliquely, and rather wider apart; near the posterior angle there are again two more, and these are the smallest of the series, and are placed much closer together; commencing in front, and running between the depressions herein

described, there is a broad, dark grey band, of uneven width, and irregular in outline; when dry the latter is barely visible, but after immersion in alcohol it is clear and distinct; inferior surface light grey, hairy; at about one-third its length from the front there are two large depressions or pits seated rather closely together, and below these two others, smaller, and rather wider apart; commencing near the centre and running towards base of spinnerets, there are two lateral rows of small punctures; the rows converge sharply inwards (but do not nearly meet) for about one-third their length, and then continue in nearly straight lines to their termination. *Superior spinnerets* long, grey, tapering; the terminal joint of each is annulated with dark grey near the base, and again just below the centre; tips dark grey; each of these spinnerets is clothed with hairs and armed on the inner margin with two rows of spindles of not less than 20 each.

♀. Cephalothorax 2 mm. long, 2 mm. broad; abdomen 3 mm long, 2·4 mm. wide.

The *cephalothorax*, except that it is a little larger, agrees in every detail with the ♂; the *eyes* are similarly arranged, and the only point of difference (making allowance for size) in the legs is that they are tinged with small reddish markings; the *palpi* are long, and similar in colour and armature to the legs.

The only other point that calls for remark is the *abdomen*, which, instead of being oval as in the ♂, is obovate; the colour is, if anything, a shade lighter, and the broad, median, irregular, dark band is bifurcated in front, and has fine lateral lines branching off in an oblique backward direction; of these the first pair occur a little below the centre, and the second pair a little lower down. These marks are, however, indistinct when dry. The puncturation and colouration of the inferior surface is similar to the ♂.

Epigyne simple, slightly elevated, with two grooves on the posterior margin.

Hab.—Balmoral, Sydney Harbour.

Family ARGIOPIDÆ.

Subfamily ARGIOPINÆ.

Genus ARANEUS, Clerck (= *Epeira*, auct.).

ARANEUS PARVULUS, sp. nov.

(Plate xxiv., figs. 3, 3a, 3b, 3c.)

♂. Cephalothorax 1.5 mm. long, 1.4 mm. broad; abdomen 2 mm. long, 1.5 mm. broad; total length 3.2 mm.

Cephalothorax obovate, longer than broad, arched, sparingly hairy. *Pars cephalica* yellow, high, arched, somewhat attenuated in front, obtusely truncated. *Pars thoracica* broad, brown, glabrous, arched, deeply depressed at centre, radial grooves indistinct.

Eyes in three series of 2, 4, 2; the median group forms a square and are seated upon a tubercular eminence; of these the anterior pair are slightly the smallest, and are separated from each other by a space equal to three times their individual diameter; the posterior pair are separated from each other by a space equal to twice their individual diameter; lateral eyes minute, oblique, contiguous, and elevated upon small tubercular projections.

Legs long, yellow, annulated with broad brown rings, and armed with long, dark brown spines. Relative lengths 1, 2, 4, 3.

Palpi yellow, short, similar in clothing and armature to legs. *Copulatory organ* large, broad, and exceedingly complicated.

Maxillæ and *labium* yellow, normal.

Sternum cordate, dark brown, glabrous.

Abdomen ovate, projecting over base of cephalothorax, convex, pubescent, dark brown, with a large median patch of chrome yellow, the latter being intersected with a short, dark brown, irregular, longitudinal and transverse line, somewhat in the form of a †; upon the upper surface there are four large punctures, arranged in the form of a trapezium, and of these the anterior pair are much the closest together.

♀. Cephalothorax 2 mm. long, 1.8 mm. broad; abdomen 2.4 mm. long, 2.4 mm. broad; total length 3.3 mm.

Cephalothorax obovate, orange-yellow, clothed with long, coarse, hoary hairs. *Pars cephalica* high, arched, obtusely truncated. *Pars thoracica* broad, arched, median and radial grooves distinct.

Eyes: central group forming a trapezium, elevated upon a small protuberance; anterior median pair separated from each other by a space equal to fully twice their individual diameter; posterior pair somewhat larger than the preceding, and these are also separated from each other by a space equal to twice their individual diameter; lateral eyes minute, oblique, contiguous, and elevated upon small tubercular projections.

Legs moderately long, yellow with brown annulations, hairy, and armed with long, black spines. Relative lengths 1, 2, 4, 3.

Palpi similar in colour and armature to legs.

Falces yellow, glabrous, moderately long, arched, hairy, apices divergent.

Maxille and *labium* yellow, normal.

Sternum cordate, glabrous, yellow, hairy.

Abdomen broad, ovate, strongly arched, boldly projecting over base of cephalothorax, very finely pubescent, dark reddish-brown in front and laterally; from near anterior margin, and extending for about one-third the length, there is a large patch of chrome yellow reticulated with fine, reddish-brown lines; from thence backwards dark reddish-brown mottled with chrome yellow; abdominal punctures as in the ♂; a broad, sinuous, longitudinal band commences in front and continues to near posterior extremity; this is crossed in front, near the base, with a broad, slightly arched bar, the margins of which are irregular, and the lateral extremities pointed; sides and inferior surface dark brown.

Epigyne as in figure.

Hab.—Guildford, near Sydney.

ARANEUS SINGULARIS, sp. nov.

(Plate xxiv., figs. 4, 4a, 4b.)

♀. Cephalothorax 2 mm. long, 1.4 mm. broad; abdomen 2.7 mm. long, 2.7 mm. broad; total length 3.7 mm.

Cephalothorax obovate, longer than broad, yellow-brown, clothed with hoary hairs. *Pars cephalica* high, arched, attenuated, obtusely pointed in front. *Pars thoracica* broad, arched, strongly depressed at centre, radial grooves distinct. *Marginal band* narrow.

Eyes arranged in three series of 2, 4, 2; the four comprising the median group form a trapezium, and the pair comprising the anterior row are separated from each other by a space equal to about three times their individual diameter; the posterior pair are larger than their anterior neighbours, and are also separated from each other by a space equal to fully three times their individual diameter; lateral eyes sessile, minute, oblique, seated well back, and close to marginal band, nearly contiguous, lower eyes slightly the smallest.

Legs moderately long and strong, hairy, spined, dark brown with straw-yellow annulations. Relative lengths 1, 2, 4, 3.

Palpi similar in colour and armature to legs.

Falces reddish-brown, moderately long, strong, apices divergent.

Maxillæ yellowish, glabrous, arched, broad, divergent.

Labium concolorous, glabrous, arched, broader than long, rounded off at apex.

Sternum cordate, convex, dark brown, moderately clothed with long hoary bristles.

Abdomen globose, of a greyish hue, overhanging base of cephalothorax, pubescent; upon the upper surface there are four large punctures arranged in the form of a trapezium, and of these the anterior pair are much the closest together; inferior surface pubescent, grey, streaked laterally with long, irregular, dark brown lines, the latter converging towards spinnerets.

Epigyne a large, high, glabrous, dark brown eminence, rounded in front; lobed laterally, and terminating in an obtuse point.

Hab.—Bungendore.

Genus DICROSTICHUS, E. Simon.

DICROSTICHUS FURCATUS, Camb., *var. DISTINCTUS*, var. nov.*Cyrtarachne furcata*, Cambridge.

This species was described and figured by Cambridge in 1877,* from a specimen collected at Parramatta. Some time ago, Master Clark, son of Dr. Clark, North Sydney, collected a specimen, which is unquestionably a variety of *D. furcatus*, an example sufficiently differentiated from the typical form to warrant description.

In the form under consideration all the parts except the abdomen agree with Cambridge's description. In Cambridge's specimen, the abdomen is described as having on the upper side "some not very large, bluntish, conical protuberances; two of them are in a straight transverse line, wide apart towards the fore margins; the rest, eight in number, are arranged in a somewhat circular group at the posterior extremity."

Upon the upper surface of the form collected by Master Clark there is near, and in front of, the two anterior protuberances, a large, broad, transverse depression, which is much the deepest laterally; the tubercles are located near the centre, straw-yellowish at the base, and the apices mahogany-brown; between the protuberances there is a short transverse ridge, the sides of which slope sharply backwards, eventually terminating in two deep round punctures or pits, the depths of which are dark brown; the punctures just described are widely separated, although somewhat closer together than the anterior tubercles; in a line with these there is on each outer margin of the superior surface a smaller but rather deep puncture; below the median pair again, and rather closer together, there are two more punctures, equal in size and depth to the lateral pits; at the posterior extremity there is a group of nine protuberances; of these, three are arranged in a slightly procurved row, and nearly encircled by

* P.Z.S., 1877, p. 560, pl. lvi., fig. 2.

six smaller individuals; of the latter the anterior pair are the smallest, the lateral pair much the broadest at the base, and encircled with a fine black line; the intervening space between the anterior and posterior tubercles is very uneven; at the base of the three protuberances forming the median group there are both in front and behind two rather deep punctures or pits, and of these the anterior pair are the widest apart.

Again, in his description, Cambridge says:—"The upper side is of a dull sooty hue, mapped out into rather roundish-angled patches, of various forms and sizes, which are divided from each other by clear and intersecting straw-yellow stripes; most of these patches have a central blackish spot on the fore part." From this description, however, the form under study differs in that the roundish-angled patches are moss-green; the intersecting straw-coloured stripes are present as described by Cambridge, but whereas, according to this writer, "the patches above described are almost obsolete on the middle and hinder part of the upper side, which are of a plain straw-yellow colour," in this example these patches are distinct and of a yellowish-grey hue; furthermore, there is present at the posterior extremity two distinct dark brown lines, connected in front by a gently procurved transverse bar; in addition there are also two disconnected, lateral, faintly visible brown lines; these curve gently outwards to the posterior angle, and are, like their more distinct neighbours, continued on the underside, and converge towards the spinnerets. Cambridge also described his example as having a number of long, black, lanceolate bristles upon the anterior part of the abdomen and sides (*vide* description and figure), but these are altogether wanting in the form before me. The inferior surface, sides and hinder slope agree with Cambridge's description. The abdomen, both above, laterally, and below, is clothed with fine yellowish pubescence, but these hairs are not nearly so long as those figured by Cambridge.

Hab.—North Sydney.

In a former paper, "Descriptions of Some New Araneidæ of New South Wales," No. 8, published in the P.L.S.N.S.W., 1897,

Part 3, I described and figured (p. 517, pl. xvii., figs. 3, 3a, 3b) a species of *Araneus*, for which I proposed the name *Epeira variabilis*. This specific name, I find, was preoccupied, having been used for an American species of that genus; therefore I now propose to alter the name to *Araneus concinnus*.

DESCRIPTION OF PLATES.

(Plate xxiii.)

Fig. 1.—*Dysdera australiensis* (♀).

Fig. 1a.— „ „ maxillæ and lip.

Fig. 2.—*Tama eucalypti* (♀).

Fig. 2a.— „ „ eyes.

Fig. 2b.— „ „ (♂) palpus.

Fig. 2c.— „ „ (♂) copulatory organ.

(Plate xxiv.)

Fig. 3.—*Araneus parvulus* (♀).

Fig. 3a.— „ „ (♂) palpus, viewed from the side.

Fig. 3b.— „ „ (♂) copulatory organ.

Fig. 3c.— „ „ (♀) epigyne, viewed from the side.

Fig. 4.—*Araneus singularis* (♀).

Fig. 4a.— „ „ position of eyes, viewed from the side.

Fig. 4b.— „ „ cephalothorax and falces, viewed from the front.

Fig. 4c.— „ „ epigyne.

CORRIGENDUM.

In the explanation of Figs. 2-2c at the bottom of Plate xxiii.—

For *Tama eucalypti* (♀) read *Tama eucalypti*.